SHOUT
SHARE
IT

Bulletin 152-168 OK - RBS. 4/10/42

163 = 23rd/24th Ann. Rpt 1905/1906 -? OK -RBS 4/10/42

Experiment Station Library.

Class ~~639.73~~

Number ~~A53 Cop.3~~

Volume ~~Bulletins 152-168~~

Source

Received June 1915 (Neal)

Cost

Accession No. 3417 Ex. S.

Bulletin 154 October, 1911

NEW HAMPSHIRE
AGRICULTURAL EXPERIMENT STATION
DEPARTMENT OF CHEMISTRY

The Feeding Stuffs Inspection

For 1911

MADE FOR THE
STATE BOARD OF AGRICULTURE

BY B. E. CURRY AND T. O. SMITH

NEW HAMPSHIRE COLLEGE
OF
AGRICULTURE AND MECHANIC ARTS
DURHAM, N. H.

NEW HAMPSHIRE COLLEGE OF AGRICULTURE AND THE MECHANIC ARTS.

NEW HAMPSHIRE AGRICULTURAL EXPERIMENT STATION

DURHAM, N. H.

Board of Control

HON. JOHN G. TALLANT, *Chairman*, West Concord
HON. WARREN BROWN, Hampton Falls
HON. N. J. BACHELDER, A. M., M. S., East Andover
HON. E. H. WASON, B. S., Nashua
PRES. WILLIAM D. GIBBS, D. Sc., *ex-officio*, Durham

The Station Staff

JOHN C. KENDALL, B. S., *Director.*
FREDERICK W. TAYLOR, B. Sc. (Agr.), *Agronomist.*
CHARLES BROOKS, Ph. D., *Botanist.*
FRED RASMUSSEN, B. S. A., *Dairyman.*
B. S. PICKETT, M. S., *Horticulturist.*
B. E. CURRY, A. B., *Chemist.*
T. R. ARKELL, B. S. A., *Animal Husbandman.*
W. C. O'KANE, M. S., *Entomologist.*
CHARLES W. STONE, A. M., *Farmer, and Vice-director.*
W. H. WOLFF, M. S., *Assistant Horticulturist.*
DAVID LUMSDEN, *Assistant in Floriculture.*
T. O. SMITH, A. B., *Assistant Chemist.*
J. J. GARDNER, B. S., *Assistant in Olericulture.*
O. L. ECKMAN, B. S., *Assistant Animal Husbandman.*
CAROLINE A. BLACK, A. M., *Assistant Botanist.*
MIRIAM L. HOBBS, *Purchasing Agent.*
LAURA B. BICKFORD, *Stenographer.*
M. GENEVIEVE BURT, *Bookkeeper.*
S. EDNA DAVIS, *Stenographer.*
ELIZABETH E. MEHAFFEY, *Librarian.*

The bulletins of the Experiment Station are published at irregular intervals and are sent *free* to all residents of New Hampshire requesting them.

The Feeding-Stuffs Inspection for 1911.

In 1911 the secretary of the State Board of Agriculture through the official inspector turned in 166 samples of feeding-stuffs. Sixty-eight samples were licensed. Twelve of these samples were composed of whole or coarsely ground grains, the nature and composition of which were apparent. Accordingly, a chemical analysis was not made. Thirty samples represented duplicates. Fifty-six samples were analyzed and the results are tabulated in the following table.

In general the feeds analyzed were in accordance with the guarantee. A number were well above the guarantee while a few were below. As usual the inspector reported a large number of low grade feeds but all of these do not appear in this report.

At the last session of the New Hampshire legislature the feeding-stuffs law was amended so as to require an inspection of a wider range of feeding-stuffs, also a guarantee of the maximum percentage of crude fiber is now required. The law is still inadequate. If the law were to require a statement of the specific ingredients of which any particular feeding-stuff were compounded the interest of both the consumer and manufacturers of high grade feeding-stuffs would be protected. A number of states now require a statement of the specific ingredients of which a feed is made. New Hampshire consumers of feeding-stuffs should demand a proper revision of the feeding-stuffs law at the next session of the Legislature and secure what some of the neighboring states demand and get.

The following is a copy of the present New Hampshire feeding-stuffs law.

Be it Enacted by the Senate and House of Representatives in General Court Convened:

SECTION 1. That section 1 of chapter 35, session Laws of 1901, be amended by inserting after the words "and of crude fat," the words and of crude fiber, so that the section a

amended shall read: Every manufacturer, company, or person, who shall sell, offer, or expose for sale or for distribution in this state any concentrated commercial feeding-stuff used for feeding farm live-stock, shall furnish with each car or other amount shipped in bulk and shall affix to every package of such feeding-stuff, in a conspicuous place on the outside thereof, a plainly printed statement clearly and truly certifying the number of net pounds in the package sold or offered for sale, the name or trademark under which the article is sold, the name of the manufacturer or shipper, the place of manufacturer, the place of business and a chemical analysis stating the percentages it contains of crude protein, allowing one per centum of nitrogen to equal six and one fourth per centum of protein, of crude fat and of crude fiber, both constituents to be determined by the methods prescribed by the associates of official agricultural chemists. Whenever any feeding-stuff is sold at retail in bulk or in packages belonging to the purchaser the agent or dealer, upon request of the purchaser, shall furnish to him the certified statement named in this section.

SECT. 2. That section 2 of the same act be amended by inserting after the words "corn and oat chops," the words wheat, rye and buckwheat bran and middlings, and by striking out the words "neither shall it include wheat, rye, and buckwheat brans or middlings, not mixed with other substances, but sold separately, as distinct articles of commerce, nor pure grains, ground together," so that section 2 shall read: The term concentrated commercial feeding-stuffs as used in this act, shall include linseed meals, cottonseed meals, pea meals, cocoanut meals, gluten meals, gluten feeds, maize feeds, starch feeds, sugar feeds, dried brewer's grains, malt sprouts, hominy feeds, cerealine feeds, rice meals, oat feeds, corn and oat chops, wheat rye and buckwheat bran and middlings, ground beef, or fish scraps, mixed feeds and all other materials of similar nature; but shall not include hays and straws, the whole seeds nor the unmixed meals made directly from the entire grains of wheat, rye, barley, oats, Indian corn, buckwheat and broom corn.

SECT. 3. That section 4 of said act be amended by substituting for the words "a license" the words an analysis

throughout the section; by substituting the word fifteen for the word "twenty:" and by inserting after the word "dollars" the words for each brand offered for sale within the state so that section 4 as amended shall read: SECT 4. Each manufacturer, importer, agent, or seller of any concentrated commercial feeding-stuffs, shall pay annually during the month of December to the secretary of the board of agriculture an analysis fee of fifteen dollars, for each brand offered for sale within the state. Whenever a manufacturer, importer, agent, or seller of concentrated commercial feeding-stuff desires at any time to sell such material and has not paid the analysis fee therefor in the preceding month of December, as required by this section, he shall pay the analysis fee prescribed herein before making any such sale. The amount of analysis fees received by said secretary pursuant to the provisions of this section shall be paid by him to the treasurer of the state of New Hampshire. The treasurer of the state of New Hampshire shall pay from such amount when duly approved the moneys required for the expense incurred in making the inspection required by this act and enforcing the provisions thereof. The secretary of the board of agriculture shall report biennially to the legislature the amount received pursuant to this act, and the expense incurred for salaries, laboratory expenses, chemical supplies, traveling expenses, printing, and other necessary matters. Whenever the manufacturer, importer, or shipper of concentrated commercial feeding-stuff shall have filed the statement required by section 1 of this act and paid the analysis fee as prescribed in this section, no agent or seller of such manufacturer, importer, or shipper shall be required to file such statement or pay such fee.

Approved April 15, 1911.

Messrs. J. E. Robinson and D. B. Keyes have assisted in the preparation of the following analytical work.

Name of Brand.	Manufactured by	Percent Protein.		Percent Fat.		Retail Price per 100 lbs.
		Guaranteed.	Found.	Guaranteed.	Found.	
Cotton Seed Meals						
Choice Cotton Seed Meal	American Cotton Oil Co	41.00	42.73	9.00	11.62	1.65
Dixie Brand Cotton Seed Meal	Humphrey's Godwin Co	38.00	41.32	6.00	7.65	1.75
Owl Brand Cotton Seed Meal	F. W. Brode & Co	41.00	41.00	6.00	7.05	1.85
Pioneer Cotton Seed Meal	J. E. Soper & Co	41.00	42.12	8.00	9.35	1.65
Soper's Choice Cotton Seed Meal	J. E. Soper & Co	41.00	42.38	8.00	8.44	1.55
Gluten Feeds						
Buffalo Gluten Feed	Corn Product Refining Co	23.00	27.84	2.50	2.34	1.45
Clinton Gluten Feed	Clinton Sugar Refining Co	20.00	24.08	3.00	6.22	1.45
Crescent Gluten Feed	Corn Product Refining Co	23.00	28.37	2.50	2.50	1.40
Poultry Feed						
Buffalo Poultry Feed	Buffalo Cereal Co	15 00	15.63	4.00	5.25	2.10
Wirthmore's Growing Feed	Chas. M. Cox Co	13.00	11.51	5 00	3.51	2.00
Husted Laying Mash	Husted Milling Co	15.00	16.90	3.00	4.79	2.00
Growing Feeds	Park & Pollard Co	14.00	14.15	3.00	1.70	2.25
Dry Mash	Park & Pollard Co	20.00	17.60	3.00	3.47	2.25
American Poultry Feed	Quaker Oats Co	12.00	12.68	3.50	4.34	1.60
Algrane Poultry Feed	H. O. Co	17.00	16.20	5.50	5.61	2.20
Meat Scraps, etc.						
Blue Ribbon Beef Scraps	Park & Pollard	50.00	56.48	10.00	15.00	3.00
Whitman & Pratts Beef Scraps	Whitman & Pratt	40.00	44.27	10.00	15.00	3.25
Swift Lowell Meat Scraps	Swift's Lowell Fertilizer Co	40.00	39.58	8.00	12.31	2.50
Ground Fish Scraps	International Glue Co		47.40		3.42	2.50
Dow's Ground Beef Scraps	John C. Dow Company	43.00	44.04	13.00	16.47	2.65
Beef Scraps	Beach Soap Company		40.11		21.60	2.50
Swift's Lowell Bone and Meat Meal	Swift's Lowell Fertilizer Co	35.00	40.11	8.00	12.26	1.90
Hinkley Cooked Beef Scraps	Hinkley Rendering Co	35.00	36.95	8.00	10.37	2.50
Bowker's Animal Meal	Bowkers Fertilizer Co	40.00	32.34	5.00	9.27	2.60
Hinkley's Beef Scraps	Hinkley Rendering Co		36.12	6.00	8.64	2.65
Miscellaneous Feeds						
William Tell Mix Feed	W. F. Anstead & Burk Co	15.00	15.77	5.00	4.56	1.55
Creamery Feed	Buffalo Cereal Company	18.00	19.24	4.00	4.90	1.65
Buffalo Horse Feed	Buffalo Cereal Company	10.00	11.25	4.00	5.27	1.75
Schumaker Stock Feed	Quaker Oats Co	10.00	10.66	3.25	3.33	1.35
Victor Corn and Oats Feed	Quaker Oats Co	7.50	7.52	3.00	3.01	.66
Buckeye Mix Feed	Quaker Oats Co		16.32		4.32	1.50
Pearl Horse and Cow Feed	Chapin & Company	7.00	8.41	2.50	2.89	1.25
Wirthmore's Stock Feed	Chas. M. Cox & Co	9.00	9.36	4.00	7.95	1.45

Miscellaneous Feeds—*Continued.*						
Wirthmore's Balanced Ration	Chas. M. Cox & Co	26.00	26.11	5.00	5.03	1.60
Haskell's Stock Feed	W. H. Haskell & Co	8.00	9.11	4.00	6.94	1.40
H. O. Algrain Milk Feed	H. O. Company	14.00	16.46	4.00	4 03	1.50
Husted Stock Feed	Husted Milling Co	8.00	11.03	4.00	5.82	1.55
Sterling Mix Feed	Indiana Milling Co	10.00	9.80	3.00	3.00	.....
Sterling Stock Food	Great Western Cereal Co	10.00	10.42	4.00	4.10	1.35
Star Feed	Toledo Elevator Co	7.00	8.72	4.50	6.38	1.50
Wirthmore Wheat Feed	Chas. M. Cox & Co	16.00	16.46	4.00	5.03	1.55
Molasses Feeds						
Dairy Molasses Feed	Quaker Oats Co	16.00	14.55	3.50	4.17	1.25
Sucrene Dairy Feed	American Milling Co	16.50	16 20	3.50	4.38	1.40
Sucrene Horse and Mule Feed	American Milling Co	10.00	10.51	3.00	2 74	1.40
Brewers' Grains						
Union Dairy Ration	Chapin & Company	26.00	26.62	5.50	6.86	1.65
Biles Ready Mixed Union Grains	J. W. Biles & Co	24.00	24.78	7.00	7.19	1.70
Biles XXXX Grains	J. W. Biles & Co	31.00	31.79	12.00	13.63	1.40
Hominy Feeds						
Wirthmore Hominy Feed	Chas. M. Cox & Co	9.50	10.23	7.50	7.45	1.30
Hominy Feed	Buffalo Cereal Co	.....	9.90	.....	7.50	1.45
Cream of Corn	American Maize Products Co	23.00	24.91	2.50	2.78	1.50
Oil Meals						
Old Process Oil Meal	Guy S. Major Co	30.00	33.10	5.00	6.13	1.95
Old Process Oil Meal	American Linseed Co	32.00	38.18	5.00	5.45	2.10
Calf Feeds						
Schumacher's Calf Feed	Quaker Oats Company	19.00	18.95	8.00	7.24	3.30
Calf Meal	Blatchford's Calf Meal Co	25.00	23.60	5.00	5.26	4.00
Dried Beet Pulp	Larrowe Milling Company	8.00	9.02	.50	.59	1.35

The following chicken feeds were licensed but were composed of coarsely ground or whole grains and were not analyzed.

Wirthmore Scrath Feed	Chas. M. Cox Co	10.00	.....	3.00	.....	1.90
Wirthmore Chick Feed	Chas. M. Cox Co	11.00	.....	3.00	.....	2.25
Buffalo Scratch Feed	Buffalo Cereal Co	10.00	.....	3.00	.....	.....
Cyphers Chick Feed	Cyphers Incubator Co	10.50	.....	3.40	.....	2.15
Sterling Chick Feed	Great Western Cereal Co	10.33	.....	3.00	.....	2.15
Sterling Scratch Feed	Great Western Cereal Co	10.00	.....	8.00	.....	1.75
Scratch Feed	Park & Pollard	10.00	.....	3.00	.....	1.90
Purina Chick Size	Ralston Purina Mill Co	11.00	.....	3.00	.....	.....
Schumacher's Little Chick Feed	Quaker Oats Co	10.00	.....	2.50	.....	2.00
Schumacher's Scratching Grains	Quaker Oats Co	10.00	.....	2.50	.....	1.80
Wyandotte Brand Scratch Feed	Ross Bros. & Co	8.25	.....	2.25	.....	2.25

AVERAGE COMPOSITION OF COMMON CATTLE FOODS

	Water.	Ash.	Protein.	Soluble Carbohydrates.	Fibre.	Fat.
Alfalfa	8.4	7.4	14.3	46.0	25.0	14.0
*Hay, red top	8.9	5.2	7.9	47.4	26.6	1.9
*Hay, Timothy	13.2	4.4	5.9	45.0	29.0	2.5
*Hay, clover	15.3	6.2	12.3	38.1	24.8	3.3
*Hay, Hungarian	7.7	6.0	7.5	49.0	27.7	2.1
*Oat fodder	8.9	6.2	7.6	45.1	29.3	2.8
*Rye fodder, in bloom	8.5	5.9	9.7	43.4	30.2	2.3
*Corn stover	40.1	3.4	3.8	31.9	19.7	1.1
†Corn silage	80.5	1.5	1.6	10.0	5.8	0.6
*Corn, N. H. Flint	10.1	1.5	11.6	70.2	1.1	5.5
*Corn, Western Dent	10.6	1.5	10.3	70.4	2.2	5.0
*Corn meal	15.0	1.4	9.2	68.7	1.9	3.8
¶Hominy feed	9.0	2.8	11.0	65.0	3.6	8.6
*Oats, whole	11.0	3.0	11.8	59.7	9.5	5.0
¶Corn and oats, pure	12.0	2.2	9.8	68.5	3.3	4.2
§Wheat bran, spring	10.6	6.0	16.3	53.0	9.4	4.7
§Wheat bran, winter	11.7	5.9	15.2	54.8	8.5	3.9
¶Wheat middlings, white	11.3	2.7	15.8	62.5	3.5	4.2
Wheat middlings, brown	10.6	3.8	17.8	57.0	5.5	5.3
¶Wheat feed	10.8	4.3	17.0	58.1	5.1	4.7
Gluten feed	8.6	1.2	26.3	53.4	6.9	3.6
Gluten meal	8.8	0.7	35.5	50.3	1.6	3.1
‡Distillers' Grains	8.8	1.8	32.1	34.9	11.0	11.4
Brewers' Grains	8.0	3.8	23.1	49.4	10.8	4.9
‡Malt sprouts	11.0	5.8	27.1	42.6	11.9	1.6
¶Linseed meal, old process	9.8	5.5	33.9	35.7	7.3	7.8
¶Linseed meal, new process	9.1	5.8	35.2	38.4	8.5	3.0
¶Cottonseed Meal	6.9	7.2	44.6	25.1	5.6	10.6

*Composition of American Feeding Stuffs. Jenkins and Winton.
†Analyses made at the N. H. Expt. Sta., 1895-1899.
§Penn. Expt. Sta. Bull., No. 48.
¶Compiled from Feed Inspection Reports of various states.
‡Hatch Expt. Sta. Bull., No. 94.

630.72
N532
no.152-168

DATE DUE

A fine of Two Cents will be charged for each day the book is kept overtime.

FEB 1 1 '59			
DEC 7 '60			
[illegible]			

F32